

Calling Time on Low Risk Drinking Guidelines? Evaluating alternative methods to communicate alcohol's risks to consumers

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**As required by the Alcohol Policy 19 Conference,
I/we have signed a disclosure statement and note the
following conflict(s) of interest:**

TS, TN and AS have received research funding, travel expenses and/or personal fees from the BC Liquor Distribution Branch of the BC Ministry of Finance, the Finnish alcohol retail and distribution monopoly (Alko) and the Swedish alcohol retail and distribution monopoly (Systembolaget) for research on alcohol and public health policy.



Bella Priore, Uvic Undergraduate Psychology Student with friend. This paper includes some of her Honours Dissertation research findings

Background to Study

- Canada is revising its generous low risk drinking guidelines (LRDGs) downwards
- New levels set at where lifetime risks of premature mortality exceed 0.1% and 1%
- But how best to convey this risk: e.g. % increase, “low risk” level, specific disease risks, impact on life expectancy??



For these guidelines, “a drink” means:



Your limits

Reduce your long-term health risks by drinking no more than:



- 10 drinks a week for women, with no more than 2 drinks a day most days
- 15 drinks a week for men, with no more than 3 drinks a day most days

Plan non-drinking days every week to avoid developing a habit.

Special occasions

Reduce your risk of injury and harm by drinking no more than 3 drinks (for women) or 4 drinks (for men) on any single occasion.

Plan to drink in a safe environment. Stay within the weekly limits outlined above in **Your limits**.

When zero's the limit

Do not drink when you are:

- driving a vehicle or using machinery and tools
- taking medicine or other drugs that interact with alcohol
- doing any kind of dangerous physical activity
- living with mental or physical health problems
- living with alcohol dependence
- pregnant or planning to be pregnant
- responsible for the safety of others
- making important decisions

Pregnant? Zero is safest

If you are pregnant or planning to become pregnant, or about to breastfeed, the safest choice is to drink no alcohol at all.



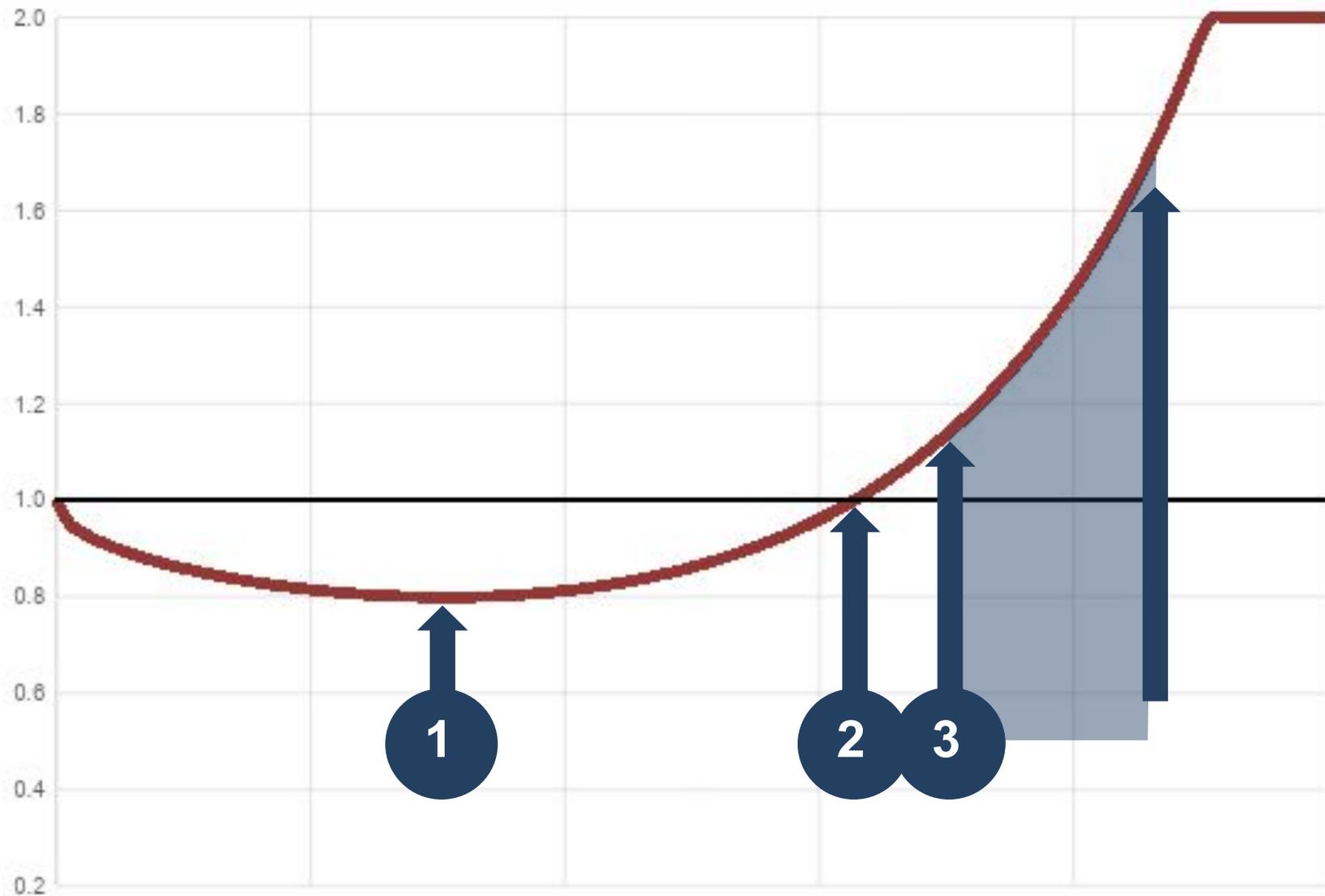
Delay your drinking

Alcohol can harm the way the body and brain develop. Teens should speak with their parents about drinking. If they choose to drink, they should do so under parental guidance; never more than 1–2 drinks at a time, and never more than 1–2 times per week. They should plan ahead, follow local alcohol laws and consider the **Safer drinking tips** listed in this brochure.

Youth in their late teens to age 24 years should never exceed the daily and weekly limits outlined in **Your limits**.



Relative risk, compared to abstainer



Alcohol consumption / day



Cancer & LRDG labels in Yukon study, 2017/18

**CHIEF MEDICAL OFFICER
OF HEALTH ADVISES**
**MISE EN GARDE DU MÉDECIN
HYGIENISTE EN CHEF**

**Alcohol can
cause cancer**
including breast and
colon cancers

**L'alcool peut
causer le cancer**
y compris le cancer du
sein et du côlon

**INFO: WWW.YLC.YK.CA/LABELS
HELP/AIDE: 1-855-667-5777**

**To reduce health risks,
drink no more than:**

 **standard drinks
a day.** 

**Plan two or more
non-drinking days
each week.**

**Pour réduire les risques
pour la santé,
ne pas boire plus de :**

 **verres standards
par jour.** 

**Prévoir deux
jours ou plus
sans alcool par
semaine.**

**INFO: WWW.YLC.YK.CA/LABELS
HELP/AIDE: 1-855-667-5777**



Study Aims

- Estimate impacts of different lifetime drinking levels on measures of life expectancy
- Evaluate alternative alcohol warning label (AWL) messages that express the same risk level using an online experiment with young adults
- Assess tolerance to lost life expectancy from alcohol use and perceptions of cancer risk for alcohol vs tobacco (# drinks=10 cigarettes?)



Absolute Mortality Risks for Canadians

- Latest systematic reviews and meta analyses for 18 types of partially or fully alcohol attributable diseases/injuries
- A 1% increase in mortality risk was estimated **at just under one drink per day** for men & women
- Estimated impacts on life expectancy of different consumption patterns (lifetime drinks per day) from age 15 for men and women



Canada's new draft Guidelines: CCSA, August 2022

Catherine Paradis and Peter Butt (2022),
Canadian Centre on Substance Use and
Addiction

*“Update on Canada’s Low Risk Drinking
Guidelines: Final Draft for Public Consultation”*

URL:

[https://ccsa.ca/update-canadas-low-risk-alcohol
-drinking-guidelines-final-report-public-consultat
ion-report](https://ccsa.ca/update-canadas-low-risk-alcohol-drinking-guidelines-final-report-public-consultation-report)



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l'usage de substances

Estimated Years of Life Lost per 1,000 persons aged 15+ for average drinks per day (from CCSA, 2022)

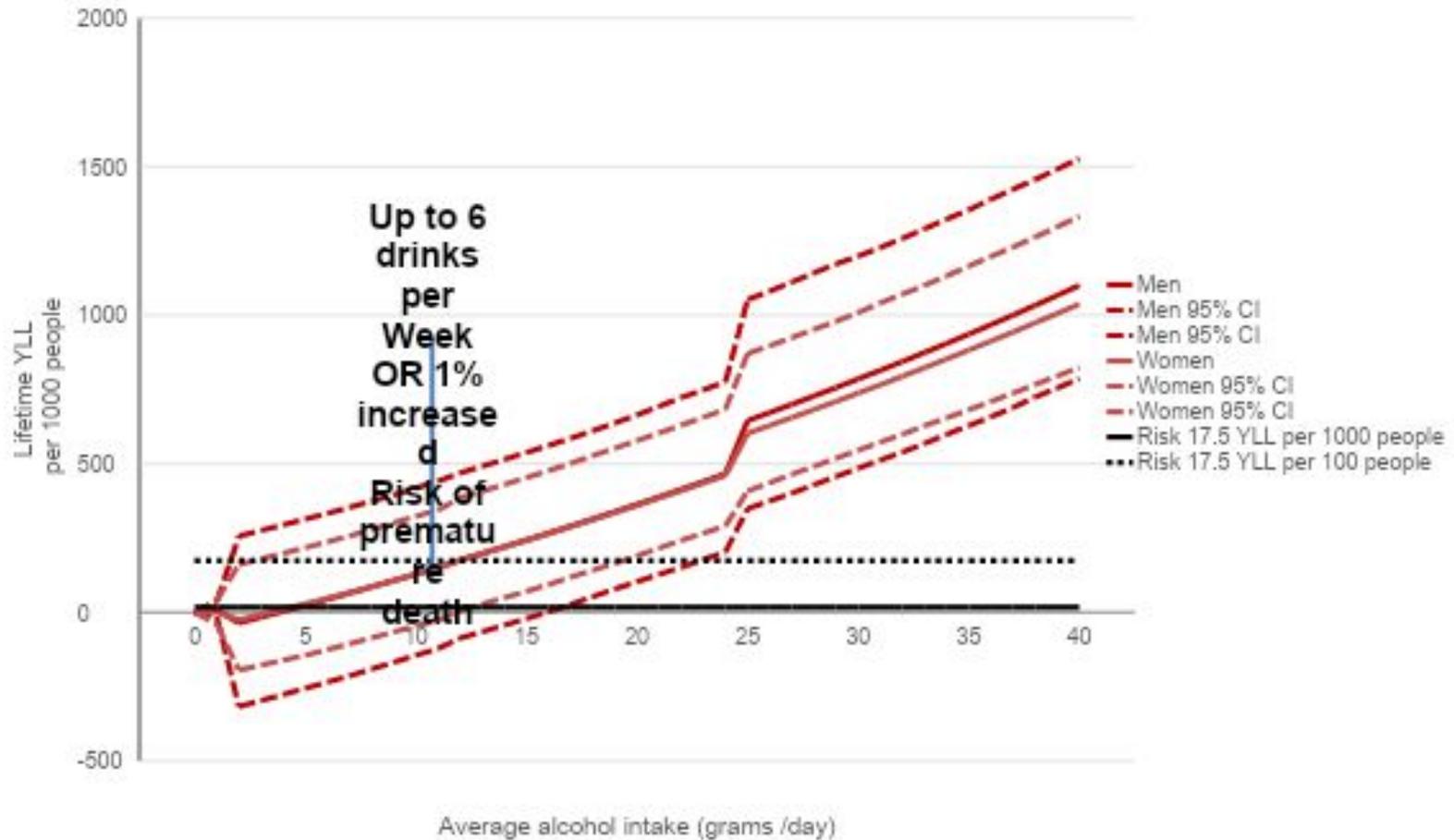


Table 1: Estimated Years of Life Lost per 1,000 persons aged 15+ for average daily drinking over the life course

Average number of drinks per day over the life course					
	1 drink	2 drinks	3 drinks	4 drinks	5 drinks
Males – Lost years per 1,000 people					
YLLs	208.2	697.0	1,113.5	1,738.1	2,489.5
Females – Lost Years per 1,000 people					
YLLs	194.6	660.8	1,059.2	1,629.5	2,331.0

Table 2: Estimated Weeks of Life Lost per person aged 15+
for different levels of average daily drinking over the life course

Average number of drinks per day over the life course					
	1 drink	2 drinks	3 drinks	4 drinks	5 drinks
Males – Lost Weeks per Person					
YLLs	10.8	36.2	57.9	90.4	129.5
Females – Lost Weeks per Person					
YLLs	10.1	34.4	55.1	84.7	121.2

Table 3: Estimated Minutes of Life Lost per Drink for a person aged 15+ for average daily drinking over the life course

Average number of drinks per day over the life course					
	1 drink	2 drinks	3 drinks	4 drinks	5 drinks
Males – Lost Minutes per Drink					
YLLs	4.6	7.7	8.2	9.6	11
Females – Lost Minutes per Drink					
YLLs	4.3	7.3	7.8	9	10.3

Present Study: Within-Subject Experiment



6 experimental labels created
5 specific, 1 general



1 control label based on
alcohol industry
approved message



Baseline knowledge questions



Compared Clarity, Impact,
Discomfort, Annoyance
reactions to labels



Study Methods: Within-Subject Experiment



332 students aged 18-30



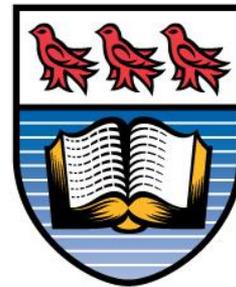
Survey platform *Qualtrics*



Incentives: academic credits, Amazon gift cards\$



Conditional Logistic Regression Analysis



**University
of Victoria**



ACADIA
UNIVERSITY

Protocol Pre-registered on Open Science Framework



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Our 7 AWLs: “Health Canada Advises...”

1 **Cancer Risk (Ca)**
Alcohol consumption increases risk of breast, colon and other cancers

2 **Drink Less (DL)**
Alcohol harms your health, drink less to lower your risk of long-term health problems

3 **1% Increase (X%)**
More than 2 standard drinks per day and 7 per week increases your risk of serious illness by at least 1%

4 **3 Months (3Mo)**
One standard drink consumed every day shortens life expectancy by about 3 months

5 **5 Minutes (5Min)**
Every individual drink consumed shortens life expectancy by about 5 minutes

6 **Classic Guideline (LRDG)**
No more than 2 standard drinks per day and 7 per week is the lowest risk for your health

7 **Industry Standard (IS)**
Celebrate life, drink responsibly

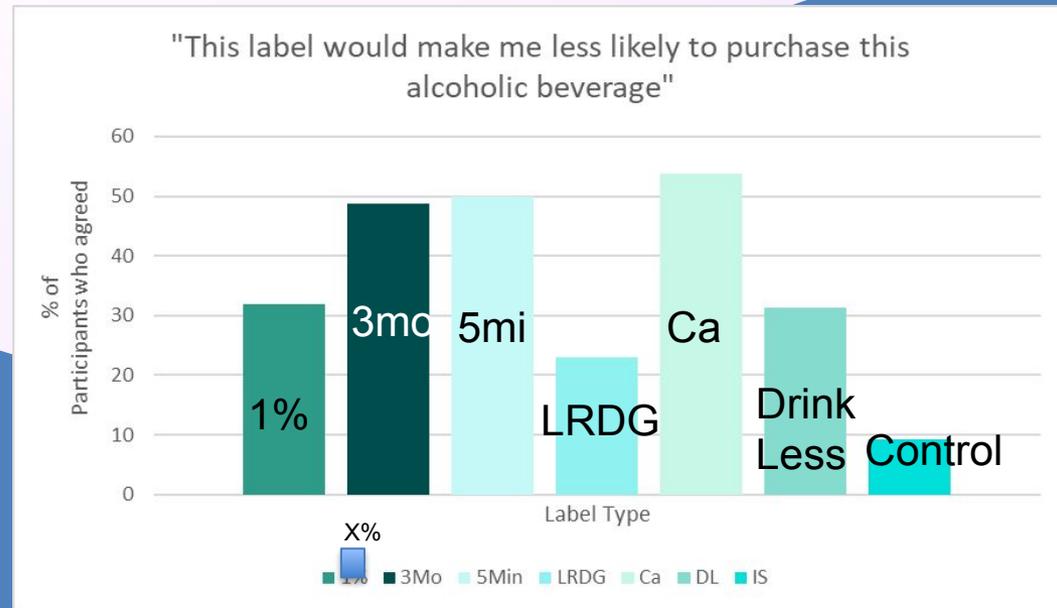


Comparative Impact ratings of the AWLs

All experimental AWLs were rated as significantly more impactful than the industry standard

Cancer and Life Expectancy labels were the most impactful

- The 3 month and 5 minutes **loss of life expectancy** labels were more impactful than the 1% risk and 'less is best' labels
- The latter were more impactful than the LRDG label



Comparative Impact of alternative AWLs

Impact

Conditional Logistic Regression

Clarity

The experimental AWLs were mostly **rated as clearer than the control**

- LRDG label the exception

Discomfort

All experimental AWLs were **more discomfoting than the control**

Annoyance

All experimental AWLs **except Ca and LRDG were more annoying** than the control – but only slightly

Label Type vs Control (Impact)	N	Odds Ratio	95% CL Lower	95% CL Upper	Sign ^c
Ca	327	17.00	8.68	33.30	<.001
5Min	324	16.11	8.22	31.59	<.001
3Mo	323	13.00	7.04	24.00	<.001
1%	324	5.06	3.05	8.38	<.001
DL	325	5.00	3.01	8.29	<.001
LRDG	325	3.81	2.20	6.61	<.001



Main Findings

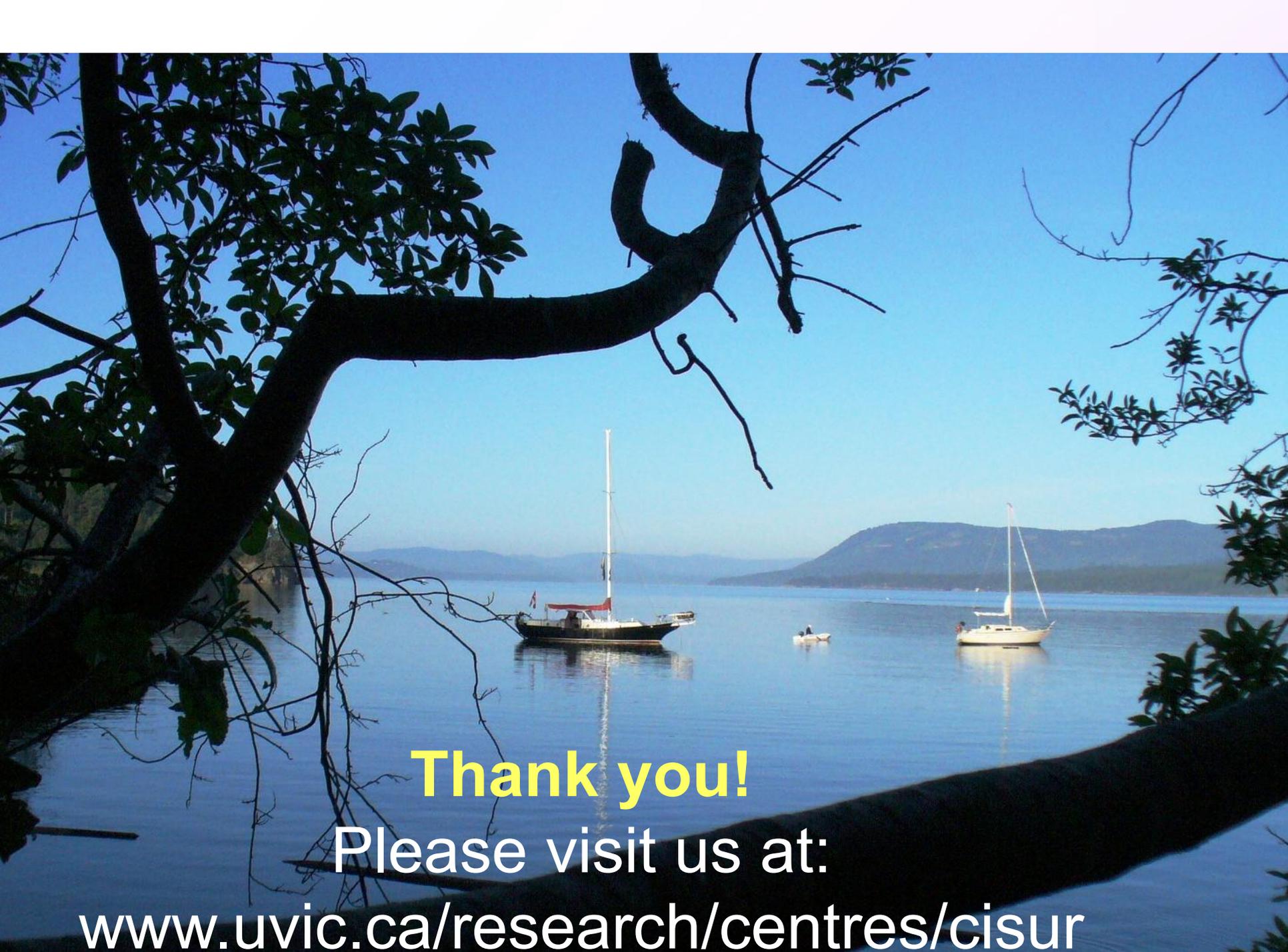
- Impact on life expectancy more effective than small 1% risk, drink less or LRDG messages
- On average, respondents tolerated 2.9 years of life lost to maintain their drinking – 10 to 15 times higher than their mean actual risk
- BUT 25% expressed LESS tolerance than their actual risk level
- Subjects falsely perceived the **cancer risk** from alcohol as many times lower than for tobacco
Mean: 65 drinks=risk from 10 cigarettes
But actual=20 drinks for men, 10 for women



Conclusions

- Worth exploring alternative ways to communicate health risks that allow drinkers to directly evaluate health risks for themselves
- Young adults heavily discount future risks BUT significant minority (25%) had less tolerance for lost life than they were actually exposed to i.e. duty to inform these consumers
- Need to investigate risk perceptions in larger, more representative sample across all age groups





Thank you!

Please visit us at:

www.uvic.ca/research/centres/cisur

Present Study: Participant Sample



Age range: 18-30



Female: 80.1%
Male: 16.9%
Other/DNA: 3%



Victoria: 209
Wolfville: 98
Elsewhere: 25



1st year: 37.7%
2nd year: 22.6%
3rd year: 26.8%
4th year: 13.0%



White: 82.8%
Asian: 6.6%
Other: 10.6%

